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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,915	10/19/2000	Hermann Bieringer	514413-3843	7663

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EXAMINER
CLARDY, S

ART UNIT	PAPER NUMBER
1616	15

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/691,915	Bieringer et al
Examiner	**Art Unit**
S. Mark Clardy	1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *May 19, 2003* .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-16, 18, and 19* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-16* is/are rejected.

7) ☒ Claim(s) *18 and 19* is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Claims 1-16, 18, and 19 are pending; claims 6, 7, and 10-13 have been held withdrawn as being drawn to non-elected species in Paper No. 8.

Applicants' claims are drawn to herbicidal compositions and methods comprising:

A. A herbicide with various (hetero)cyclic groups connected by a carbonyl group:

$$Q - CO - X$$

Q^1 = 1,3-cyclohexanedione
Q^2 = pyrazole
Q^3 = isoxazole
Q^4 = isothiazole
Q^5 = R-CO-CR-

X^1 = phenyl
X^2 = bicyclic hetero (SO_2) ring
X^3 = tricyclic hetero (SO_2) ring

B. A second herbicidal component (see lists in claims 6-13).

Applicant's elected species comprises the following combination of active agents:

A. The triketone herbicide, Compound "A4" (p. 26)[1], wherein:

$Q = Q^1$ 2-(1,3-cyclohexanedione)

$X = X^1$ substituted phenyl ring

B. The "B-b" group sulfonylurea herbicide, nicosulfuron (not used in the examples).

The rejection under 35 USC 112, first paragraph, is withdrawn in response to applicants' comments.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such

[1]This compound differs from the triketone herbicide sulcotrione in having $-CH_2-O-CH_2-CF_3$ at the 3-position of the benzoyl ring. See also US Patent 6,376,429 (Van Almsick et al) cited in applicants' response.

that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of the following: Kamano et al (US 5,801,121), Shibata et al (EP 0 768 033), Graber et al (PCT WO 97/34486), Luff (US 6,239,070), Anderson-Taylor et al (PCT WO 97/22253), Takashima et al (EP 0 810227), or Scher et al (US 5,912,207).

Kamano et al teach the herbicidal activity of Q^1-CO-X^2 herbicides.

Shibata et al teach the combination of Q^2-CO-X^2 herbicides with secondary herbicides (p. 38-45).

Graber et al teach the combination of Q^3-CO-X^1 (benzoylisoxazole) herbicides with secondary herbicides (p. 6-9: dichloroacetamides, triazines, dinitroanilines).

Luff teach the combination of Q^3-CO-X^1 (benzoylisoxazole) herbicides with sulfonylurea herbicides.

Anderson-Taylor et al teach the combination of Q^3-CO-X^1 (benzoylisoxazole) herbicides with bromoxynil or ioxynil.

Takashima et al teach the combination of Q^3-CO-X^2 (benzoylisoxazole) herbicides with secondary herbicides (p. 19, lines 43-46).

Scher et al teach the combination of Q^5-CO-X^1 herbicides with secondary herbicides (col 8, lines 24-42).

Note that these references have not been applied in combination.

Thus it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined applicants' nonelected A herbicides with secondary herbicides because the prior art teaches that several of applicants' classes of Q-CO-X herbicides may be combined with secondary herbicidal agents; further, it is *prima facie* obvious to combine herbicidal agents[2].

The test data for the elected species presented in the response filed October 15, 2002, demonstrates synergistic activity for the elected composition. The test data presented with the response filed May 19, 2003, presents a comparison with the species comprising the triketone of De Gennaro et al (previously cited), and demonstrates unexpectedly superior synergistic results in comparison with the synergistic composition of De Gennaro et al.

Thus, applicants have presented data which demonstrates unexpected results for the elected species, and for the class of triketone herbicides comprising Q^1 and X^1, i.e., the benzoyl cyclohexanediones.

It is noted that the data presented to date is incommensurate with the scope of the claims. Objective evidence of nonobviousness must be commensurate in scope with the scope of the claims. In re Tiffin, 171 USPQ 294.

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[2]It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in the prior art. In re Kerkhoven, 205 USPQ 1069.

Claims 18 and 19 (presented in Amendment B as claims 17 and 18) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Note that in claims 18 and 19, the terms Q' and X' have been used, rather than Q^1 and X^1.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103c and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is (703) 308-4550.

S. Mark Clardy
Primary Examiner
AU 1616

August 1, 2003